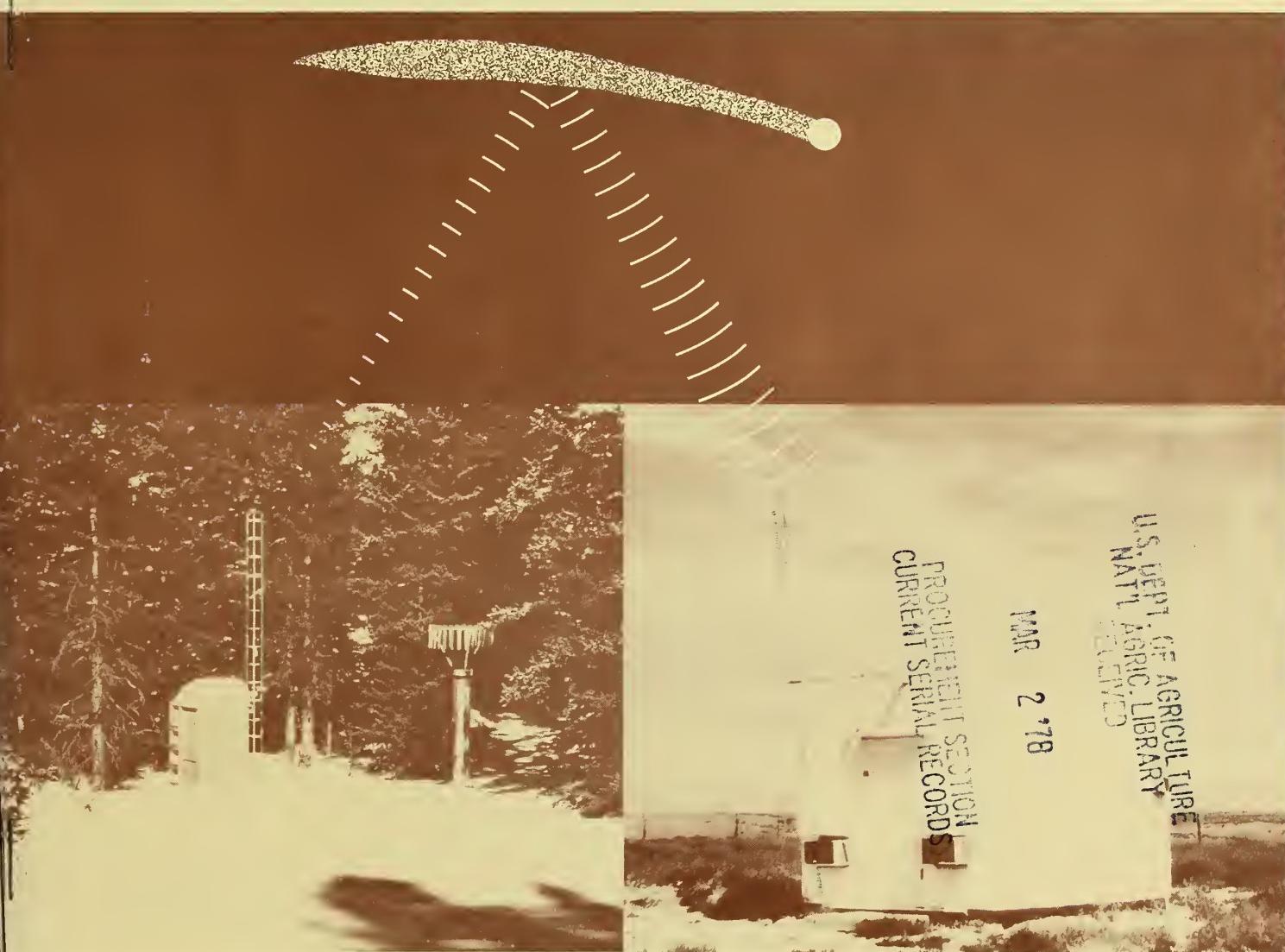


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WATER SUPPLY OUTLOOK FOR OREGON



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U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with
OREGON DEPARTMENT OF WATER RESOURCES

Data included in this report were obtained by the agencies named above in cooperation
with Federal, State and private organizations listed inside the back cover of this report.

AS OF
FEB. 1, 1978

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SOME OF THE DATA IN THIS REPORT HAVE BEEN RECEIVED THROUGH THE SOIL CONSERVATION SERVICE'S NEW SNOTEL SYSTEM WHICH TRANSMITS INFORMATION VIA THE SPACE AGED METEOR BURST METHOD FROM DATA SITES TO MASTER STATIONS LIKE THESE.

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 510, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	Room 129, 2221 East Northern Lights Blvd., Anchorage, Alaska 99504
Arizona	Room 3008, Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82602

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P.O. Box 388, Sacramento, California 95802 --- for British Columbia by the Ministry of the Environment, Water Investigations Branch, Parliament Buildings, Victoria, British Columbia V8V 1X5 --- for Yukon Territory by the Department of Indian and Northern Affairs, Northern Operations Branch, 200 Range Road, Whitehorse, Yukon Territory Y1A 3V1 --- and for Alberta, Saskatchewan, and N.W.T. by the Water Survey of Canada, Inland Waters Branch, 110-12 Avenue S.W., Calgary, Alberta T3C 1A6.



WATER SUPPLY OUTLOOK FOR OREGON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued

FEBRUARY 8, 1978

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PORTLAND, OREGON

In Cooperation with

OREGON
DEPARTMENT
OF
WATER RESOURCES

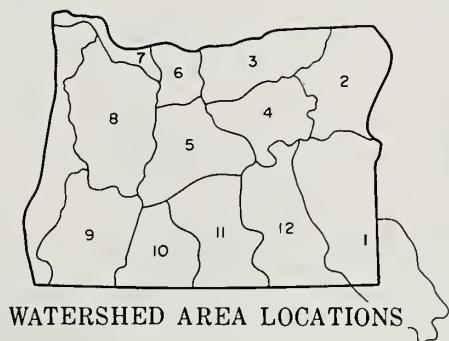
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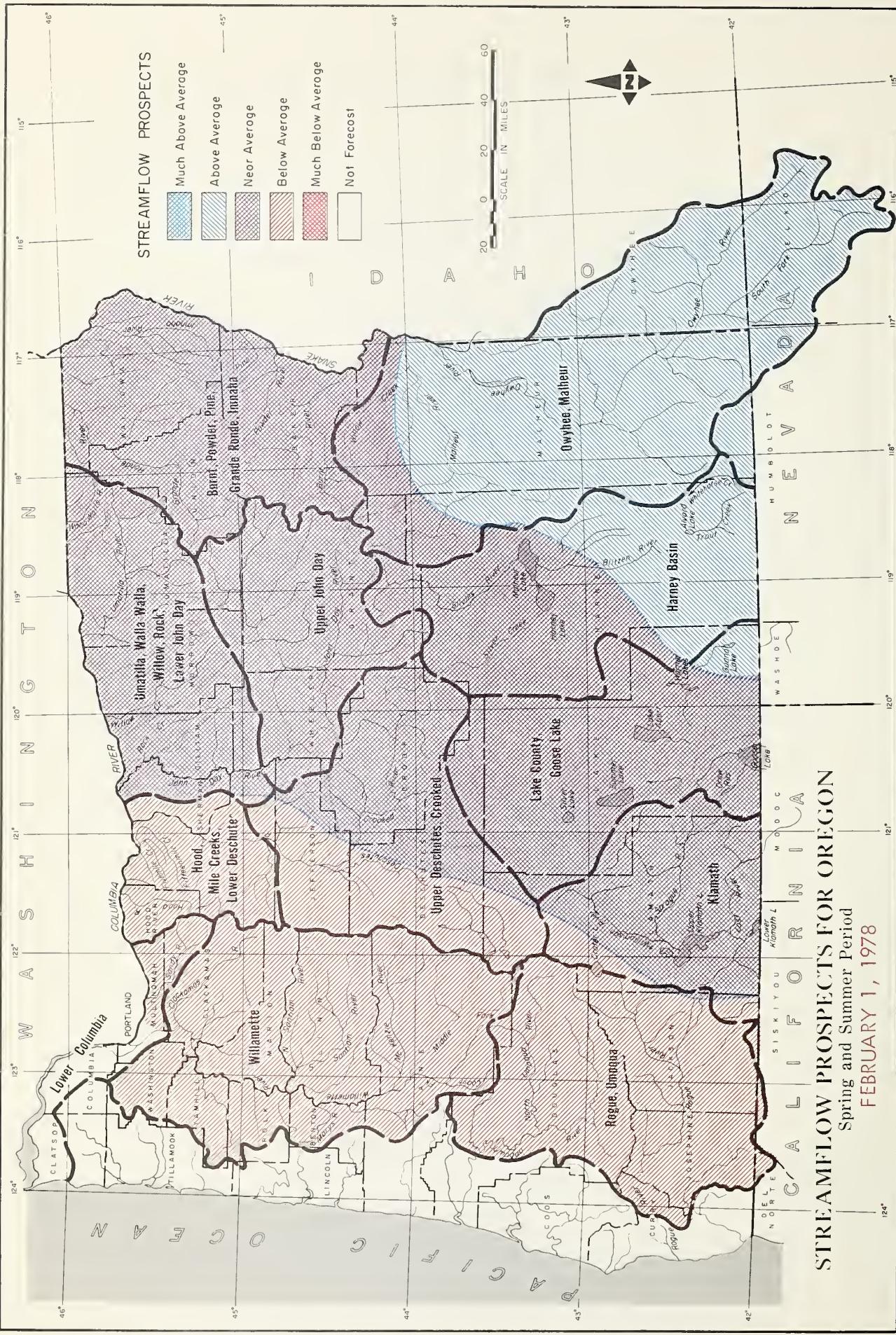
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WATER SUPPLY OUTLOOK for OREGON

F E B R U A R Y 1 , 1 9 7 8

The outlook for spring and summer water supplies in Oregon is much improved over last year.

Water supply forecasts range from 65% to 90% of normal for most streams originating in the Cascades and Siskiyou Mountains. The general outlook for western Oregon is for below average streamflow.

Central Oregon, from California to the Columbia River, and north-eastern Oregon should have normal water supplies. Streamflow is forecast to range from 90% to 110% of average.

Southeastern Oregon in the Malheur and Owyhee area is forecast for above average water supply up to 120% of normal.

If normal snow and rain is received during the remainder of the winter, no serious water shortages are anticipated.

SNOW COVER

Snow has been restricted to the higher elevations, particularly in western Oregon. Precipitation below 4,000 feet has been primarily rain. The snowpack in western Oregon is 40% to 75% of normal. Central Oregon snowpack is average and southeastern Oregon is above average.

PRECIPITATION

Precipitation for the November-January period has been above average over most of Oregon and has ranged from 92% of normal in the Rogue-Umpqua area to 145% of normal in the Hood River-Little Deschutes area.

SOIL MOISTURE

Soil moisture is well recharged throughout the state.

RESERVOIR STORAGE

Twentysix major reservoirs throughout the state have a storage of 1,484,000 acre feet, or 47% of capacity. Reservoir supplies should be adequate to meet spring and summer needs.

continued on next page -

continued -

STREAMFLOW

Streamflow is reported as near or above average, except in the western Oregon drainages. Forecasts also reflect this pattern. Representative forecasts are:

<u>Stream</u>	<u>Period</u>	<u>Forecast</u> <u>% of 1958-72 Average</u>
Owyhee net inflow	Apr.-Sept.	116
Malheur near Drewsey	Apr.-Sept.	107
Deschutes near Benham Falls	Apr.-Sept.	85
Grande Ronde near La Grande	Apr.-Sept.	96
Willamette, Mid. Fk. near Oakridge	Apr.-Sept.	50
Klamath Lake net Inflow	Apr.-Sept.	111
Rogue near Raygold	Apr.-Sept.	84
Silvies near Burns	Apr.-Sept.	115
John Day, Mid. Fk. nr. Ritter	Apr.-Sept.	103
*Columbia R. at The Dalles	Apr.-Sept.	103

* National Weather Service forecast

This report contains data furnished by the Oregon Department of Water Resources, U.S. Geological Survey, NOAA National Weather Service and other cooperators.

WATER SUPPLY OUTLOOK OWYHEE, MALHEUR WATERSHEDS OREGON

GENERAL OUTLOOK

WATER SUPPLY IN THE Owyhee-Malheur area should be above average this year. Streamflow forecasts range from 105 to 134% of average. Snowpack is ranging 118% to 124% of normal. Precipitation has been 133% of normal for the November-January period. Soils have been recharged. Reservoir storage in the area is reported at 59% of average capacity.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Bully Creek	26	134	Mar.-May		13.5
Malheur near Drewsey	129	117	Feb.-July		110
	78	107	Apr.-Sept.		72
Malheur, North Fork at Beulah	93	115	Feb.-July		81
	67	105	Apr.-Sept.		64
Owyhee Reservoir net Inflow	575	113	Feb.-July	115	510
	385	116	Apr.-Sept.	97	332

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Owyhee near Rome	1000	May 30	May 24
	250	June 16	June 20

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Beulah Reservoir	60.0	15.6	24.8	24.8
Bully Creek	30.0	10.6	12.8	15.0
Owyhee	715.0	259.8	486.9	407.9
Warmsprings	191.0	23.9	78.0	80.3

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average C
Malheur River	2	144	112

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Jordan Creek	2	672	107
Malheur River	4	1317	124
Owyhee River	4	1036	118

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

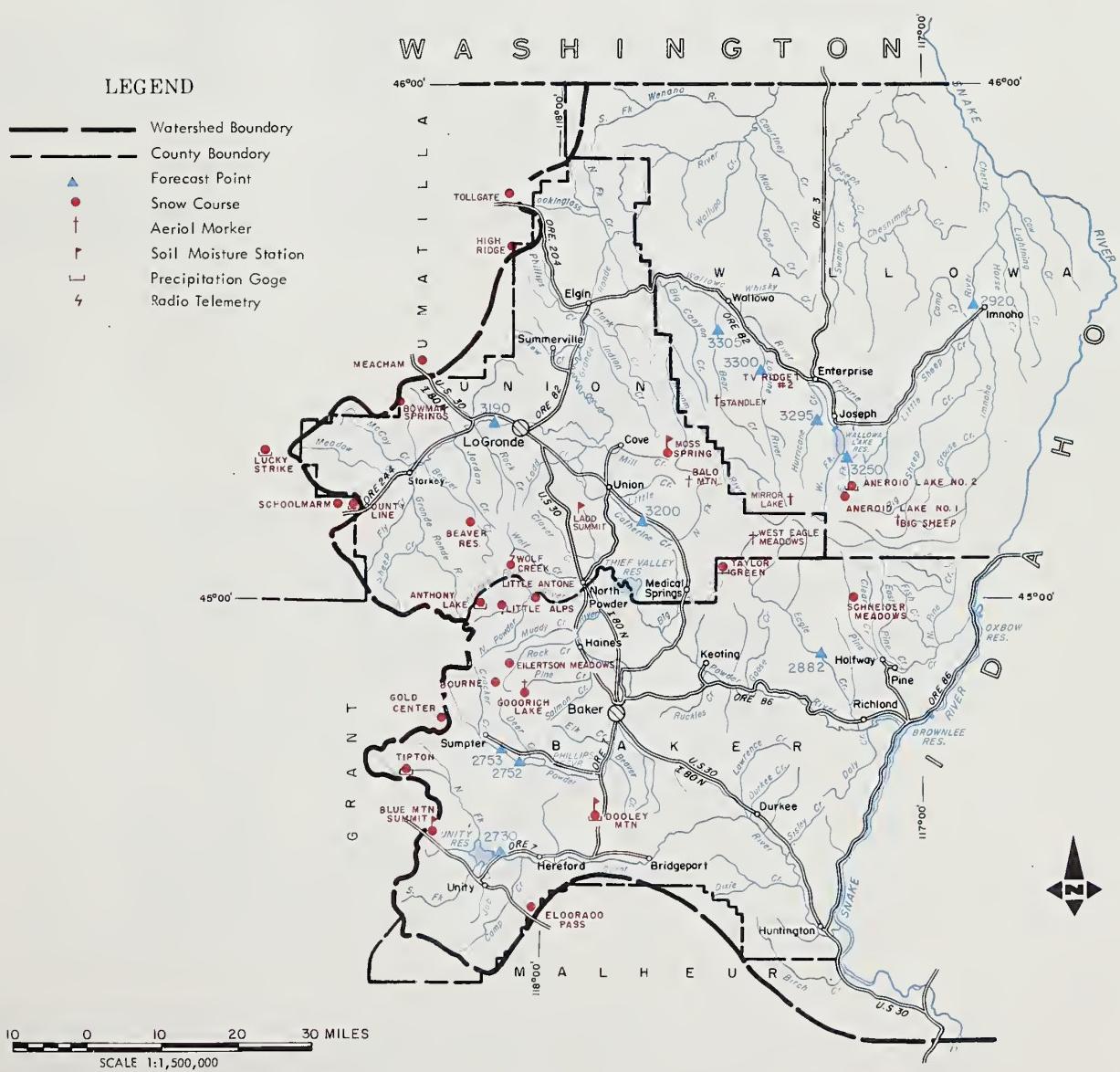
WATER SUPPLY OUTLOOK

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

OREGON

GENERAL OUTLOOK

WATER SUPPLY SHOULD BE ADEQUATE IN THIS AREA. MAJOR STREAMS ARE FORECAST TO PRODUCE 90% TO 112% OF AVERAGE FLOW. SNOWPACK VARIES IN THE AREA FROM 71% TO 107% OF AVERAGE. PRECIPITATION FOR THE NOVEMBER-JANUARY PERIOD HAS BEEN 123% OF NORMAL. SOIL MOISTURE IS RECHARGED. RESERVOIRS ARE REPORTING ABOVE AVERAGE STORAGE.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST Thousand Acre Feet	Percent of Average	FORECAST PERIOD	THOUSAND ACRE FEET Last Year
Bear near Wallowa	73	110	Apr.-Sept.	66
Burnt near Hereford	48	100	Feb.-July	48
	31	93	Apr.-Sept.	33
Catherine near Union	73	112	Apr.-Sept.	65
Eagle Creek abv. Skull Creek	166	95	Apr.-July	175
	182	96	Apr.-Sept.	190
Grande Ronde at La Grande	178	90	Mar.-Sept.	94
	151	96	Apr.-Sept.	88
Hurricane near Joseph	48	101	Apr.-Sept.	47
Imnaha at Imnaha	317	104	Apr.-Sept.	307
Lostine near Lostine	125	100	Apr.-Sept.	125
Powder near Sumpter	59	108	Apr.-July	55
	61	108	Apr.-Sept.	56
Wallowa, East Fork near Joseph	13.1	102	Feb.-Sept.	12.8
	11.4	100	Apr.-Sept.	11.4
Wallowa near Joseph	60		May-July	----

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Phillips Lake	73.5	15.6	44.2	----
Thief Valley	17.4	17.4 ^a	15.0 ^a	16.4
Unity	25.2	12.2	12.3	10.7
Wallowa Lake	37.5	23.4	24.4	21.2
Wolf Creek	10.4	2.7	----	----

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Burnt River	3	646	71
Grande Ronde River above La Grande	3	228	78
Powder River	5	823	103
Wallowa, Imnaha, Catherine Creek	6	887	107

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average C
Burnt, Powder Grande Ronde, Catherine Creek, Imnaha River	2	148	112
	3	126	111

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

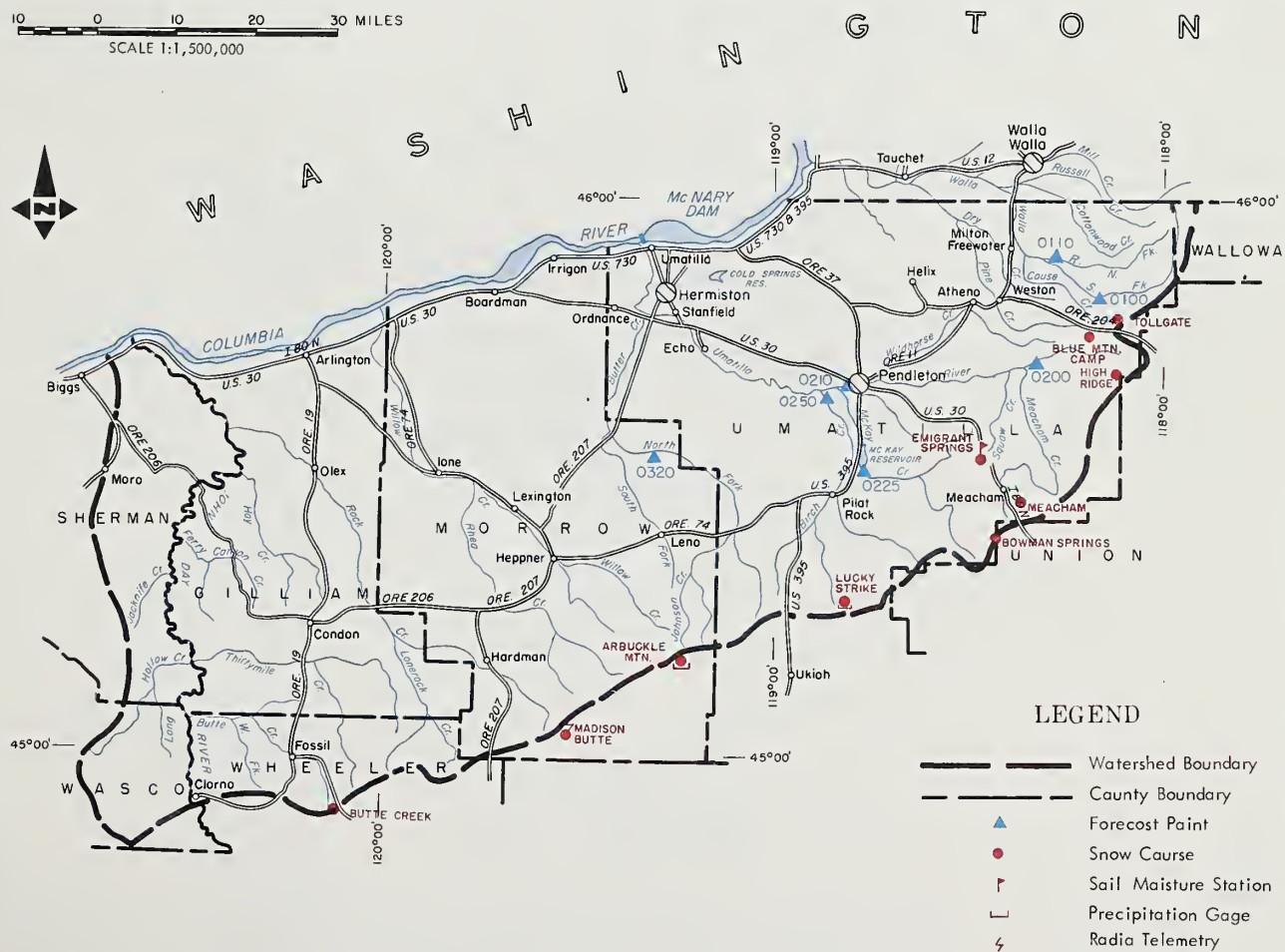
WATER SUPPLY OUTLOOK

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS OREGON

GENERAL OUTLOOK

STREAMFLOW IS FORECAST TO RANGE FROM 87% TO 94% OF NORMAL. NO WATER SHORTAGES ARE ANTICIPATED. SNOWPACK IS BELOW AVERAGE, RANGING FROM 59% TO 78% ON MAJOR DRAINAGES. PRECIPITATION FOR THE NOVEMBER-JANUARY PERIOD HAS BEEN 121% OF NORMAL. SOIL MOISTURE IS RECHARGED. RESERVOIRS ARE REPORTING AVERAGE STORAGE.

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STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Birch Creek at Rieth	24	89	Feb.-July	28	
	15	93	Apr.-Sept.	15.9	
McKay near Pilot Rock	21	87	Apr.-Sept.	24	
Umatilla near Gibbon	87	90	Mar.-Sept.	97	
	68	90	Apr.-Sept.	75	
Umatilla at Pendleton	188	94	Mar.-Sept.	200	
Walla Walla, South Fork near Milton	74	94	Mar.-Sept.	79	
	61	92	Apr.-Sept.	61 ^e	66
Butter Cr. near Pine City	10.3	90	Mar.-July		11.4

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second/Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Umatilla at Pendleton	550	May 11	May 22

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Cold Springs McKay	50.0 73.8	29.0 29.3	11.2 13.3	31.2 31.0

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average C
Umatilla, Walla Walla, McKay Creek	3	137	107

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
McKay Creek	3	235	59
Umatilla River	3	286	74
Walla Walla River	2	313	78

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

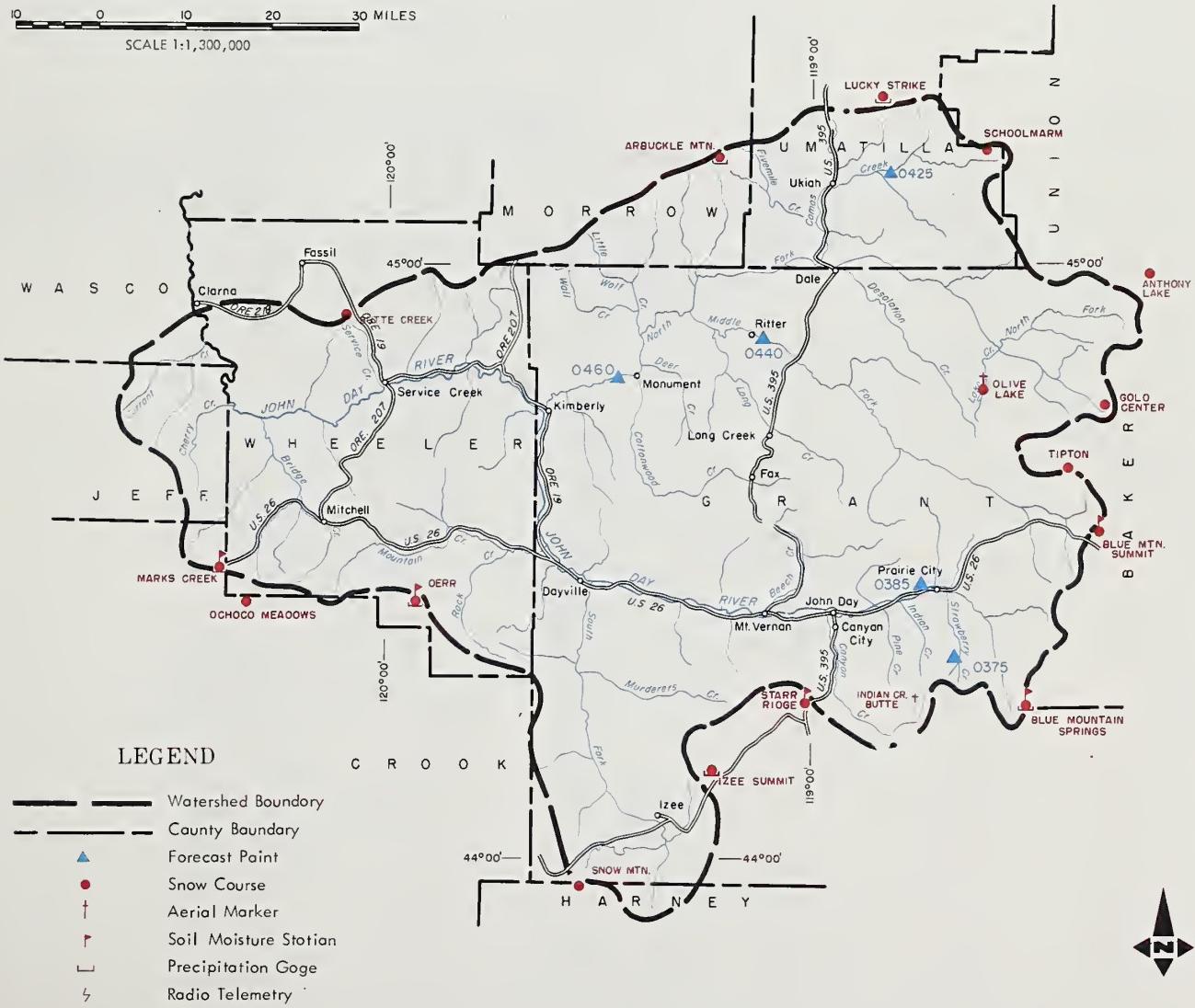
WATER SUPPLY OUTLOOK

UPPER JOHN DAY WATERSHEDS

OREGON

GENERAL OUTLOOK

WATER SUPPLY FORECASTS IN THIS AREA RANGE FROM 95% TO 113% OF NORMAL. THE SNOWPACK IS 97% TO 103% OF AVERAGE OVER THE AREA AND WINTER PRECIPITATION HAS BEEN 110% OF AVERAGE. SOIL MOISTURE RECHARGE IS WELL ESTABLISHED. NO WATER SUPPLY SHORTAGES ARE ANTICIPATED.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average c
Camas Creek near Ukiah	48	113	Mar.-July		43
	35	106	Apr.-Sept.		33
John Day, Middle Fork at Ritter	129	100	Mar.-July		129
	108	100	Apr.-Sept.		108
John Day, North Fork at Monument	664	103	Mar.-July		646
	555	103	Apr.-Sept.		540
Strawberry near Prairie City	7.1	99	Mar.-July		7.2
	7.2	95	Apr.-Sept.		7.6

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average c
John Day above Dayville	5	148	115
John Day, North Fork	2	143	114

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average c
John Day, North Fork	5	600	103
John Day abv. Dayville	5	616	91

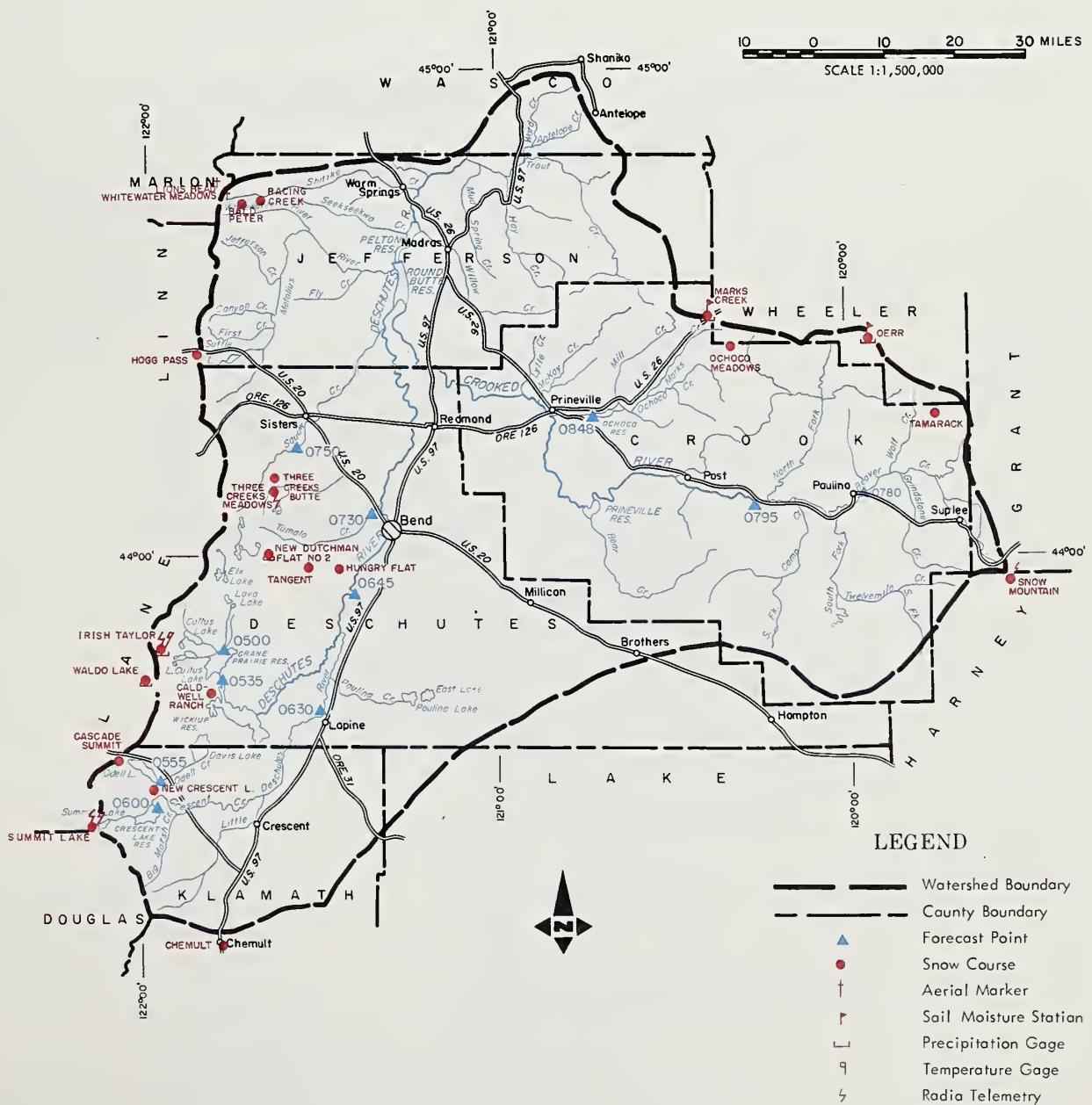
(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

UPPER DESCHUTES, CROOKED WATERSHEDS
OREGON

GENERAL OUTLOOK

THE GENERAL WATER SUPPLY OUTLOOK IS GOOD. STREAMFLOW FORECASTS FOR THIS AREA ARE GENERALLY 90% TO 100% OF AVERAGE. SNOWPACK WATER VARIES FROM 91% OF AVERAGE IN THE CROOKED RIVER BASIN TO 64% OF AVERAGE ON THE UPPER DESCHUTES RIVER. SEASON PRECIPITATION HAS BEEN 135% OF NORMAL OVER THE AREA. SOIL MOISTURE RECHARGE IS GOOD. RESERVOIRS IN THE AREA ARE GENERALLY REPORTING ABOVE AVERAGE STORAGE.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Beaver Creek near Paulina	41	100	Feb.-July		41
	17.4	109	Apr.-Sept.		16.0
Crane Prairie Reservoir total Inflow	107	90	Apr.-Sept.		119
Crescent at Crescent Lake	15.1	60	Mar.-July		21
	13.5	60	Apr.-Sept.		22
Crooked near Post	172	100	Feb.-July		172
	91	100	Apr.-Sept.		91
Deschutes at Benham Falls	306	85	Apr.-July		360
	468	85	Apr.-Sept.		550
Deschutes below Snow Creek	70	93	Feb.-Sept.		74
	58	93	Apr.-Sept.		62
Deschutes, Little near La Pine	97	95	Feb.-July		102
	73	95	Apr.-July		76
Ochoco Reservoir net Inflow	34	100	Feb.-July		34
	18.8	100	Apr.-Sept.		18.8
Odell near Crescent	20.0	73	Apr.-Sept.		28
Squaw near Sisters	48	96	Apr.-Sept.		50
Tumalo near Bend	39	90	Apr.-Sept.		44

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Crane Prairie net Inflow	300	1/	July 15
Crooked R. near Post	100	June 8	June 1
Deschutes at Bend	1500	1/	July 1
Little Deschutes near La Pine	400	May 24	June 7
	200	June 17	July 8
<u>1/</u> Issued April 1.			

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Crane Prairie	55.3	46.7	41.3	42.1
Crescent Lake	86.9	51.9	68.2	45.9
Ochoco	47.5	19.3	24.9	21.2
Prineville	153.0	92.6	93.1	102.4
Wickiup	200.0	149.2	171.3	148.5

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF	
		Last Year	Average C
Crooked R., Upper Deschutes River	3	132	104

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and or SUB-WATERSHED	Number of Courses Average ^a	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Crooked, Ochoco	4	541	91
Deschutes abv. Wickiup	3	867	64
Little Deschutes	4	544	68
Tumalo & Squaw Crs.	3	988	69

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

**WATER SUPPLY OUTLOOK
HOOD, MILE CREEKS, LOWER DESCHUTES
WATERSHEDS
OREGON**

GENERAL OUTLOOK

WATER SUPPLY IN THIS AREA SHOULD BE ADEQUATE EVEN THOUGH THE SNOWPACK AVERAGES ONLY 60% OF NORMAL. WATER SUPPLY FORECASTS ARE FOR NEAR NORMAL VOLUME FLOW. NOVEMBER TO JANUARY PRECIPITATION HAS BEEN 145% OF NORMAL. RESERVOIR STORAGE IS REPORTED TO BE ABOVE AVERAGE.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FDRECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Hood River near Tucker Bridge	278	97	Apr.-July	286	
	334	100	Apr.-Sept.	332	
Hood, West Fork near Dee	117	89	Apr.-July	132	
	142	92	Apr.-Sept.	154	
White below Tygh Valley	110	94	Apr.-July	118	
	128	96	Apr.-Sept.	133	

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Clear Branch Inflow	*43.5	July 15- July 31	**39
* Average cfs forecast to flow for this two-week period.			
** Average cfs for period of record.			

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MDNTH

RESERVDIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Clear Lake (Wasco)	11.9	3.4	6.6	2.2

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Hood River	5	976	60
White River	3	393	65

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK

LOWER COLUMBIA WATERSHEDS

OREGON

GENERAL OUTLOOK

WATER SUPPLY SHOULD BE NEAR NORMAL FOR THIS AREA. THE SANDY RIVER IS FORECAST AT 97% OF AVERAGE DISCHARGE. THE COLUMBIA RIVER AT THE DALLES IS FORECAST AT 103%.



SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average %
Sandy River	2	350	66

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET
	Thousand Acre Feet	Percent of Average		Last Year
Columbia at The Dalles*	75,430	103	Apr.-June	73,160
Sandy River near Marmot	108,000	103	Apr.-Sept.	104,426
	320	93	Apr.-July	342
	386	97	Apr.-Sept.	398

* This is a National Weather Service forecast.

HISTORICAL DATA (Columbia River at The Dalles)

YEAR	STREAMFLOW ^d (1,000 A.F.)			REGULATED PEAK (1,000 cfs)	DATE
	APR - SEPT	APR - JUNE	MAY - JUNE		
1958	97,700	72,000	58,600	593	May 31
1959	112,500	71,900	58,900	555	June 25
1960	97,000	64,000	48,000	442	June 6
1961	101,400	71,400	64,000	699	June 8
1962	94,600	64,100	49,200	460	June 5
1963	87,000	56,300	46,200	437	June 18
1964	109,020	70,739	61,313	662	June 18
1965	114,157	80,024	62,477	520	June 9
1966	87,268	58,120	45,922	396	June 12
1967	107,771	72,408	65,112	622	June 10
1968	89,000	55,500	47,900	404	June 13
1969	112,500	85,700	63,800	515	May 15
1970	88,100	62,800	55,200	425	May 28
1971	122,900	88,400	73,700	557	May 13
1972	134,700	96,400	81,400	619	June 20
1958-72 Avg.	104,500	72,900	59,900	529	

LOWER COLUMBIA RIVER FLOOD STAGES (with 9.5' tide at Astoria)

VANCOUVER GAGE Weather Bu	FLOW AT THE DALLES (1,000 cfs)	DRAINAGE DISTRICT PUMPHOUSE						
		SANDY	SAUVIE ISL.	SCAPPOOSE	DEER ISL.	RAINIER	BEAVER	WOODSON
35 (1894)	1210	41.2	34.2	33.3	28.5	21.9	17.5	15.0
34	1160	40.5	33.5	32.5	27.7	21.2	17.0	15.0
33	1100	39.6	32.4	31.4	26.7	20.2	16.1	14.3
32 (1972)	1050	38.9	31.5	30.5	25.7	19.5	15.4	13.7
31 (1948)	1000	38.0	30.7	29.5	25.1	18.8	14.7	13.0
30	943	36.6	29.5	28.5	24.3	18.1	14.0	12.4
29	897	35.5	28.5	27.7	23.7	17.5	13.4	11.8
28	853	34.3	27.5	26.7	22.8	17.0	13.0	11.4
27 (1956)	811	33.0	26.5	25.6	21.8	16.2	12.5	11.0
26 (1950)	771	32.1	25.5	24.6	20.9	15.5	12.2	10.7
25	733	30.7	24.2	23.2	19.7	14.6	11.7	10.3
24	697	29.7	23.0	22.2	19.0	14.1	11.4	10.2
23	662	29.0	22.3	21.4	18.4	13.6	11.2	10.0
22	628	28.1	21.4	20.3	17.2	13.0	10.9	9.7
21	595	27.2	20.7	19.5	16.4	12.6	10.6	9.6
20 (1954)	564	26.2	19.8	18.6	15.5	12.1	10.2	9.4
19	534	25.5	19.2	18.0	15.0	11.8	10.0	9.3
18	501	24.4	18.3	17.2	14.3	11.4	9.8	9.1
17	479	23.4	17.4	16.4	13.7	11.0	9.6	8.9
16	452	22.4	16.5	15.5	13.0	10.5	9.3	8.7

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK WILLAMETTE WATERSHEDS OREGON

GENERAL OUTLOOK

WATER SUPPLY FORECASTS FOR THE WILLAMETTE RIVER SYSTEM HAVE THE LOWEST PERCENTAGES IN THE STATE. BELOW NORMAL STREAMFLOW MAY OCCUR IN THE SUMMER. FORECASTS RANGE FROM 50% TO 80% OF NORMAL. SNOWPACK WATER RANGES FROM 34% IN THE MCKENZIE RIVER DRAINAGE TO 50% ON THE MIDDLE FORK WILLAMETTE RIVER. AREA PRECIPITATION HAS BEEN 114% OF NORMAL OVER THE WINTER. MAJOR RESERVOIRS ARE REPORTING LOW STORAGE, BUT THEY SHOULD FILL BY SPRING.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Clackamas at Estacada	472	70	Apr.-July		674
	552	70	Apr.-Sept.		789
Clackamas above Three Lynx	329	65	Apr.-July		506
	393	65	Apr.-Sept.		604
McKenzie at McKenzie Bridge	317	70	Apr.-July		453
	419	70	Apr.-Sept.		598
McKenzie near Vida	724	70	Apr.-July		1,035
	883	70	Apr.-Sept.		1,262
McKenzie, So. Fork near Rainbow	162	77	Apr.-July		210
	191	80	Apr.-Sept.		239
Oak Grove Fork above Power Intake	80	65	Apr.-July		123
	105	65	Apr.-Sept.		162
Row near Dorena	64	65	Apr.-July		98
	66	65	Apr.-Sept.		102
Santiam, North at Mehama	497	65	Apr.-July		765
	567	65	Apr.-Sept.		872
Santiam, South at Waterloo	367	65	Apr.-July		564
	405	65	Apr-Sept.		623
Willamette, Mid. Fk. blw. N. Fk. nr. Oakridge	339	50	Apr.-July	504	678
	390	50	Apr.-Sept.	582	779
Willamette, No. Fk. of Mid. Fk. near Oakridge	123	65	Apr.-July		189
	136	65	Apr.-Sept.		209
Willamette at Salem	3,686	75	Apr.-Sept.		4,943

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Clackamas River	2	365	37
McKenzie River	3	232	34
Row River	2	289	48
Santiam River	4	586	35
Willamette, Mid. Fk.	5	349	50

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Blue River	85.6*	1.9	2.8	----
Cottage Grove	30.0*	0.8	0.0	3.8
Cougar	155.2*	9.3	0.0	34.2
Detroit	299.9*	5.0	0.0	60.0
Dorena	70.5*	1.7	0.0	15.3
Fall Creek	115.0*	1.6	0.0	21.9
Fern Ridge	94.2*	5.0	0.0	24.8
Foster	30.0*	0.9	0.0	2.1
Green Peter	270.0*	6.7	0.0	73.3
Hills Creek	200.0*	14.8	0.0	38.3
Lookout Point	337.2*	7.0	0.0	64.8
Timothy Lake	61.7	28.4	41.8	49.9
Henry Hagg Lake	53.0	35.7	22.8	----

* Multiple purpose
reservoir--space
reserved primarily
for flood runoff.

WATER SUPPLY OUTLOOK

ROGUE, UMPQUA, WATERSHEDS

OREGON

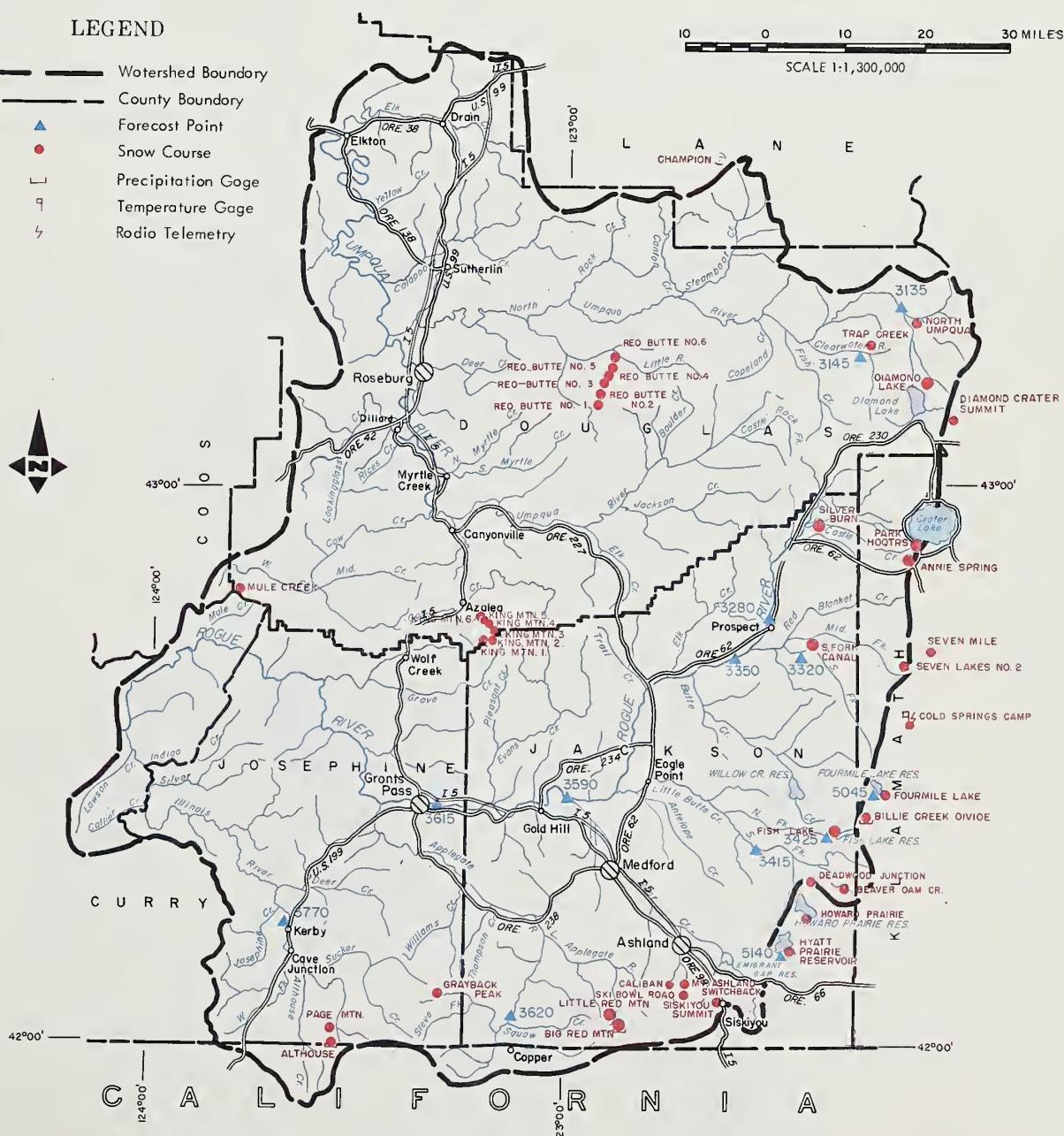
GENERAL OUTLOOK

WATER SUPPLY IN THIS AREA MAY BE BELOW NORMAL. STREAMFLOW IN THE ROGUE-UMPQUA AREA IS FORECAST TO RANGE BETWEEN 65% AND 91%. THE SNOWPACK AVERAGES ONLY 62% OVER THE AREA AND SEASONAL PRECIPITATION HAS BEEN 92% OF NORMAL. ALL MAJOR REPORTING RESERVOIRS HAVE NEAR AVERAGE STORAGE.

LEGEND

- Watershed Boundary
- County Boundary
- ▲ Forecast Point
- Snow Course
- Precipitation Gage
- Temperature Gage
- ↳ Radio Telemetry

10 0 10 20 30 MILES
SCALE 1:1,300,000



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR			PAST RECORD	
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Applegate near Copper	100	75	Apr.-Sept.	133	
Clearwater above Trap Creek	55	80	Apr.-Sept.	69	
Fourmile Lake net Inflow	3.9	90	Apr.-Sept.	4.3	
Hyatt Reservoir net Inflow	3.0	65	Apr.-July	4.6	
Illinois River near Kerby	143	75	Apr.-July	191	
	148	75	Apr.-Sept.	197	
Little Butte, N. Fk. at Fish Lake nr. Lake Cr.	12.3	90	Apr.-Sept.	13.7	
Little Butte, S. Fk. near Lake Creek	25	91	Apr.-Sept.	28	
Rogue above Prospect	207	81	Apr.-July	256	
Rogue, South Fork near Prospect	48	79	Apr.-July	61	
	57	80	Apr.-Sept.	72	
Rogue at Raygold near Central Point	604	82	Apr.-July	735	
	745	84	Apr.-Sept.	890	
Rogue at Grants Pass	574	77	Apr.-July	749	
	695	78	Apr.-Sept.	890	
Umpqua, No. blw. Lemolo Res. nr. Toketee Falls*	149	90	Apr.-Sept.	160	

* This is a National Weather Service forecast.

FORECAST DATE of LOW FLOW VALUES

FORECAST POINT	Low Flow Value Second Ft.	Forecast Date Stream Will Recede to Low Flow Value	Average Date of Low Flow Value
Little Butte Creek, South Fork	100	May 16	May 27

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Emigrant Lake	39.0	27.0	23.0	23.1*
Fish Lake	8.0	4.5	6.4	5.3
Fourmile Lake	16.1	5.6	9.6	8.6
Howard Prairie	60.0	33.0	37.6	36.5
Hyatt Prairie	16.1	9.5	10.1	10.5

* Average for years of record (in base period) after reconstruction.

SUMMARY of SNOW MEASUREMENTS (COMPARISON WITH PREVIOUS YEARS)

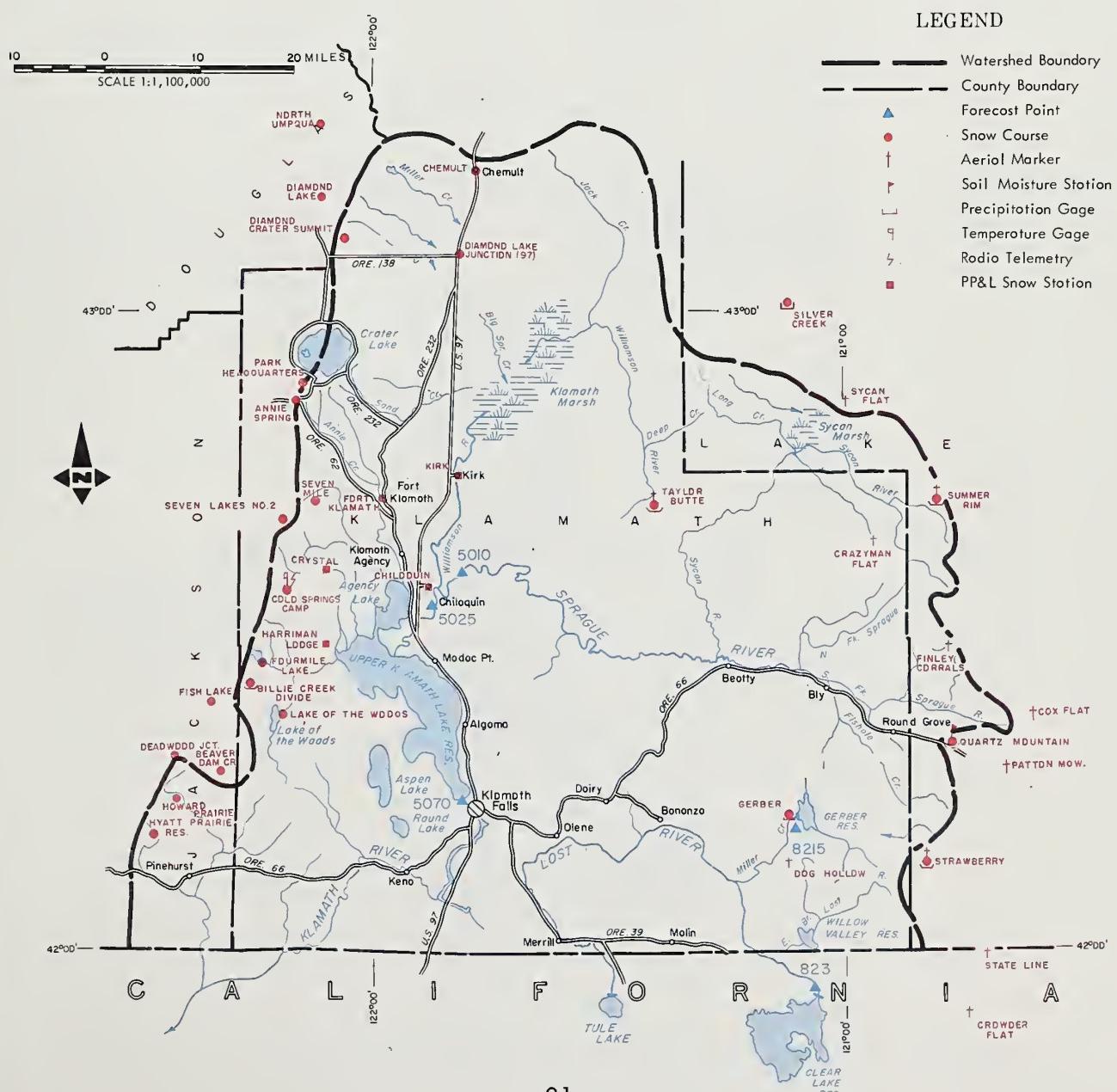
RIVER BASIN and or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Applegate	2	416	76
Bear Creek	2	386	82
Butte Creek	4	274	65
Illinois River	3	370	50
North Umpqua	3	264	48
Rogue River	4	380	75

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average (d) Corrected to natural flow. (e) Not scheduled.

WATER SUPPLY OUTLOOK KLAMATH WATERSHEDS OREGON

GENERAL OUTLOOK

WATER SUPPLY OUTLOOK IS GOOD IN THE KLAMATH AREA. STREAMFLOW IS FORECAST FOR 95% TO 115% OF NORMAL. SNOWPACK IS NEAR AVERAGE WHILE WINTER PRECIPITATION HAS BEEN 128% OF NORMAL. SOIL MOISTURE RECHARGE IS GOOD. MAJOR REPORTING RESERVOIRS HAVE EXCELLENT STORAGE AND WILL PROVIDE NORMAL OR ABOVE AVERAGE WATER SUPPLY.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average c
Clear Lake Reservoir Inflow	104	114	Feb.-July		92
Gerber Reservoir Inflow	49	115	Feb.-July		43
Sprague near Chiloquin	335	95	Feb.-Sept.		353
Upper Klamath Lake net Inflow	230	95	Apr.-Sept.		242
	975	108	Feb.-Sept.	493	899
Williamson below Sprague River	597	111	Apr.-Sept.	290	536
	692	113	Feb.-Sept.	321	615
	458	110	Apr.-Sept.	233	414

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average c
Upper Klamath	1	170	114

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average c
Clear Lake	440.2	167.1	209.8	205.6
Gerber	94.0	32.3	35.0	42.2
Upper Klamath Lake	584.0	370.9	328.7	358.9

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average c
Lost River	4	225	73
Sprague River	3	927	122
Upper Klamath	6	623	101
Williamson River	3	850	106

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

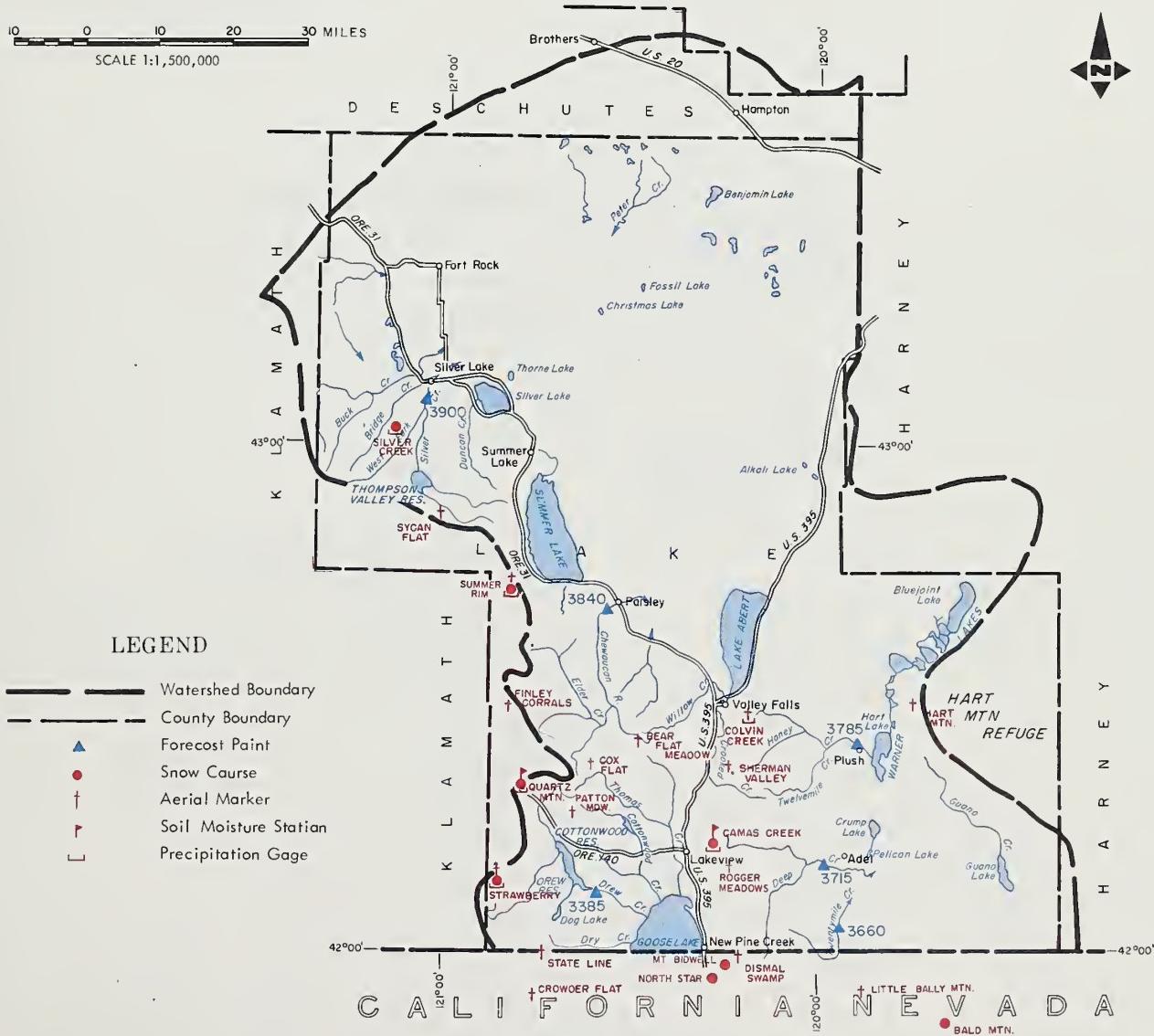
WATER SUPPLY OUTLOOK

LAKE COUNTY, GOOSE LAKE WATERSHEDS

OREGON

GENERAL OUTLOOK

STREAMS IN THE LAKE COUNTY AREA ARE FORECAST TO PRODUCE 95% TO 120% OF AVERAGE FLOW AND SHOULD PROVIDE AN ADEQUATE WATER SUPPLY. THE AREA SNOWPACK IS 109% OF NORMAL. NOVEMBER-JANUARY PRECIPITATION HAS BEEN 112% OF AVERAGE AND SOIL MOISTURE RECHARGE IS GOOD. LOCAL RESERVOIRS REPORT STORAGE FROM 54% TO 100% OF AVERAGE AND SHOULD PROVIDE NORMAL WATER SUPPLY FOR THE COMING SEASON.



STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last year	Average C
Chewaucan near Paisley	84	97	Mar.-July	12.3	87
Deep above Adel	78	100	Mar.-July		78
Drews Reservoir net Inflow	38	95	Mar.-July		40
Honey Creek near Plush	19.0	98	Mar.-July		19.5
Silver Creek near Silver Lake	13.0	95	Apr.-July		13.7
Twenty-mile near Adel	32	120	Mar.-July		26

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:	
		Last Year	Average C
Chewaucan, Silver Creek, Drew Creek	1	170	114
Honey, Deep, 20-Mi. Cr.	1	172	108

RESERVOIR STORAGE (Thousand Ac. Ft.) END OF MONTH

RESERVOIR	Usable Capacity	Usable Storage		
		This Year	Last Year	Average C
Cottonwood	8.7	3.0	1.3	2.9*
Drews	63.0	18.5	20.9	34.3
Thompson Valley	19.5	6.7	10.6	---

* Average for years of record (in base period) after reconstruction.

SUMMARY of SNOW MEASUREMENTS

(COMPARISON WITH PREVIOUS YEARS)

RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C
Chewaucan River	3	954	125
Deep Creek	2	270	99
Drew Creek	3	387	66
Honey Creek	3	485	102
Silver Creek	3	1289	89
Twenty-mile Creek	2	669	172

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

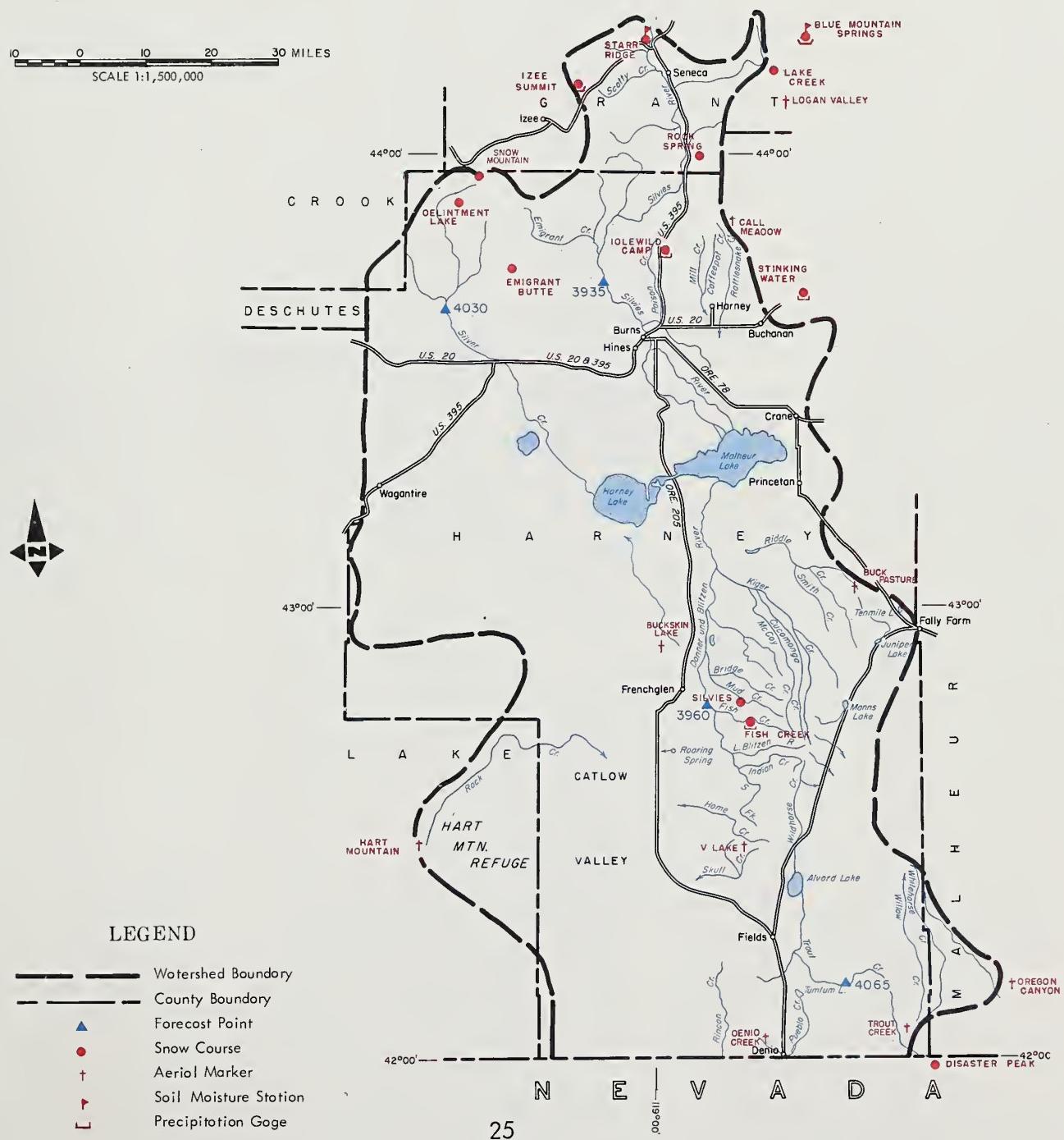
WATER SUPPLY OUTLOOK

HARNEY BASIN WATERSHEDS

OREGON

GENERAL OUTLOOK

WATER SUPPLY IN HARNEY COUNTY SHOULD BE GOOD AND WILL HELP OVERCOME THE DRY CONDITIONS OF LAST YEAR. STREAMFLOW FORECASTS RANGE FROM 115% TO 144%. THE AREA SNOWPACK IS 160% OF NORMAL. WINTER PRECIPITATION HAS BEEN 120% OF NORMAL. SOIL MOISTURE RECHARGE IS GOOD.



LEGEND

- Watershed Boundary
- - - County Boundary
- ▲ Forecast Point
- Snow Course
- + Aerial Marker
- ◆ Soil Moisture Station
- Precipitation Gage

STREAMFLOW FORECASTS

BASIN, STREAM and/or FORECAST POINT	THIS YEAR		PAST RECORD		
	FORECAST		FORECAST PERIOD	THOUSAND ACRE FEET	
	Thousand Acre Feet	Percent of Average		Last Year	Average C
Donner und Blitzen near Frenchglen	65	117	Mar.-July	55	
	61	115	Apr.-Sept.	53	
Silver near Riley	19	124	Apr.-July	15.6	
Silvies River near Burns	108	115	Mar.-July	94	
	85	115	Apr.-Sept.	74	
Trout Creek near Denio	12.1	144	Mar.-July	8.4	

SOIL MOISTURE

RIVER BASIN	Number of Stations	THIS YEAR'S MOISTURE as PERCENT OF:		RIVER BASIN and/or SUB-WATERSHED	Number of Courses Averaged	THIS YEAR'S SNOW WATER AS PERCENT OF	
		Last Year	Average C			Last Year	Average C
Silvies River, Silver Cr.	3	128	109	Donner und Blitzen R. Silver Creek Silvies River Trout Creek	2 2 4 3	339 1670 528 2425	200 108 88 243

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

BASIC DATA SUPPLEMENT 1

FEBRUARY 1, 1978

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR		PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)
	Last Yr.	Ave.		C

ONYHEE, MALHEUR WATERSHEDS

Antelope Ridge (Ida.)		e		---	3.4
Battle Creek (Ida.)	1/24	12	4.5	0.1	2.8
Bear Creek (Nev.)	1/27	50	14.8	---	13.1
Big Bend (Nev.)	1/25	24	6.6	0.6	5.7
Blue Mountain Springs	1/30	38	10.9	1.2	11.7
Blue Mtn. Springs Pillow*	1/30	---	14.0	1.4	---
Buck Pasture ***	1/24	12	3.6	0.1	1.3
Buckskin, Lower (Nev.)		e		---	---
Buckskin, Upper (Nev.)		e		---	---
Bull Basin (Ida.)	1/24	12	3.6	0.1	1.0
Bully Creek ***	1/24	20	5.4	0.0	2.4
Call Meadow ***	1/24	33	8.9	0.4	2.9
Columbia Basin (Nev.)	1/27	42	10.9	0.3	6.8 ^b
Cottonwood-Indian***	1/24	9	2.4	0.0	0.9 ^b
Disaster Peak (Nev.)		e		---	---
Eldorado Pass	1/31	22	5.5	0.1	3.1
Fawn Creek (Nev.)	1/27	58	15.1	0.7	3.0 ^b
Fish Creek		e		---	---
Fish Creek***	1/24	60	18.0	---	14.6
Fish Creek Pillow*		e		---	---
Flag Prairie ***	1/24	21	5.7	0.1	3.8
Fox Creek(Nev.)		e		---	---
Fry Canyon (Nev.)	1/25	17	4.6	0.9	4.9
Gold Creek (Nev.)	1/25	13	3.3	0.5	3.8
Granite Peak (Nev.)		e		---	10.2
Hyde Pasture (Ida.)	1/24	20	6.3	0.1	4.2
Jack Creek, Lower (Nev.)	1/25	11	3.1	---	---
Jack Creek, Upper (Nev.)	1/25	23	6.1	1.4	4.7
Jack Peak (Nev.)	1/25	48	15.7	1.4	---
Lake Creek R.S.	1/31	31	8.5	1.0	7.2
Lake Creek R.S. Pillow*		e		---	---
Laurel Draw (Nev.)	1/31	T	0.1	0.7	5.2 ^b
Logan Valley ***	1/24	21	5.7	0.6	5.6
Lookout Butte ***	1/24	3	0.9	0.0	0.3
Louse Canyon***	1/24	21	6.3	0.1	2.2
Martin Creek (Nev.)		e		---	7.0
Merritt Mountain (Nev.)	1/25	18	4.5	0.6	3.9 ^b
Midas (Nev.)	1/27	27	4.9	0.0	2.4 ^b
Mud Flat (Ida.)		e		---	---
Oregon Canyon***	1/24	16	4.8	0.1	3.5
Quinn Ridge (Nev.)	1/24	9	2.7	0.1	1.4
Red Canyon (Ida.)	1/24	27	8.1	0.4	5.4
Rock Spring		e		1.0	4.0
Rodeo Flat (Nev.)	1/25	14	3.9	0.6	3.9
76 Creek (Nev.)	1/27	34	8.8	0.2	7.6
Silver City (Ida.)	1/31	39	11.4	2.0	11.1 ^b
Silver City (Ida.)***	1/24	36	10.4	1.2	---
Silvies		e		---	---
Silvies ***	1/24	24	7.2	---	---
Silvies Pillow*		e		---	5.6
South Mountain #2 (Ida.)	1/29	34	10.1	1.2	9.0
Stag Mountain (Nev.)	1/27	18	5.0	0.3	3.2 ^b
Stinking Water	1/31	17	4.0	1.7	2.2
Succor Creek (Ida.)	1/24	12	3.5	0.1	4.2
Taylor Canyon (Nev.)	1/30	17	3.8	0.3	3.6
Toe Jam (Nev.)	1/27	39	10.4	---	6.4
Tremewan Ranch (Nev.)	1/30	10	2.4	0.1	1.2
Triangle (Ida.)	1/24	4	1.2	0.0	---
Trout Creek***	1/24	37	11.1	0.6	3.9
"V" Lake	1/24	24	7.2	0.6	3.4
Vaught Ranch (Ida.)	1/24	20	6.0	0.1	2.8
War Eagle (Ida.)	1/24	75	21.8	0.1	17.7

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR		PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)
	Last Yr.	Ave.		C

BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS

Aneroid Lake #1	1/26	76	25.0	2.8	25.4
Aneroid Lake #2	1/26	63	20.2	2.8	23.0
Anthony Lake	1/25	51	15.2	2.7	16.9
Bald Mountain (Ore.)***	1/27	60	19.2	2.2	16.6
Beaver Reservoir	1/30	29	8.2	2.5	9.0
Big Sheep ***	1/27	65	20.8	2.0	21.0
Blue Mtn. Summit	2/1	29	7.5	1.4	6.3
Bourne	1/30	44	11.6	1.3	11.0
Bourne Pillow	1/30	---	14.4	---	---
County Line	1/27	14	3.0	1.3	4.0
County Line Pillow	1/27	14	3.2	---	---
Dooley Mountain	1/26	23	6.3	0.9	6.3
Eilertson Meadows	2/3	31	8.4	1.1	8.6
Eilertson Mdw Pillow	2/3	33	8.7	---	---
Eldorado Pass	1/31	22	5.5	0.1	3.1
Gold Center	2/2	38	9.4	2.1	9.3
Gold Center Pillow	2/2	34	8.3	---	---
Goodrich Lake	2/2	70	25.6	2.4	32.1
Little Alps	1/25	28	7.0	1.3	9.1 ^b
Little Antone	1/25	18	4.8	1.2	6.7
Little Antone Alt.	1/25	18	4.3	1.7	---
Lucky Strike	2/2	27	8.4	2.3	---
Lucky Strike Pillow*	2/2	23	6.0	2.0	10.9 ^b
Meacham	2/2	18	4.3	3.0	6.9
Mirror Lake ***	1/27	164	52.5	7.9	48.0
Moss Spring	1/28	60	18.8	3.4	15.0
Schneider Meadow	1/27	73	24.6	2.0	21.2
Schoolmarm		e		1.0	3.5
Standley ***	1/27	80	25.6	2.0	19.5
Taylor Green	1/28	43	11.8	2.0	11.6
Taylor Green Pillow	1/28	55	15.3	---	---
Tipton	2/2	36	9.4	1.7	7.7
Tipton Snow Pillow*	2/2	---	11.3	1.6	---
Tollgate	2/2	44	13.7	4.0	16.9
TV Ridge***	1/27	36	11.5	0.6	13.7
West Eagle Meadows	1/27	86	24.1	3.6	---
Wolf Creek	1/26	40	11.0	1.8	---
Wolf Creek Pillow*	1/26	---	14.0	---	---

UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS

Arbuckle Mountain	2/2	24	6.2	1.8	7.6
Arbuckle Mtn. Pillow*	2/2	---	12.8	2.6	---
Blue Mountain Camp	2/2	27	8.2	3.0	11.2 ^b
Bowman Springs	2/2	23	6.0	---	---
Bowman Springs Pillow*	2/2	---	6.9	2.0	---
Butte Creek Summit	1/31	0	0.0	0.0	---
Emigrant Springs	2/2	10	2.6	0.2	4.1
High Ridge	1/27	57	16.9	---	---
High Ridge Pillow*	1/27	---	16.2	5.6	---
Lucky Strike	2/2	27	8.4	2.3	10.9 ^b
Lucky Strike Pillow*	2/2	23	6.0	2.0	---
Meacham	2/2	18	4.3	3.0	6.9
Tollgate	2/2	44	13.7	4.0	16.9

BASIC DATA SUPPLEMENT 1

FEBRUARY 1, 1978

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR		PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)
	Last Yr.	Ave C		
UPPER JOHN DAY WATERSHEDS				
Anthony Lake	1/25	51	15.2	2.7 16.9
Arbuckle Mountain	2/2	24	6.2	1.8 7.6
Arbuckle Mt. Pillow*	2/2	---	12.8	2.6 ---
Blue Mountain Springs	1/30	38	10.9	1.2 11.7
Blue Mt. Springs Pillow*	1/30	---	14.0	1.4 ---
Blue Mt. Summit	2/1	29	7.5	1.3 6.3
Butte Creek Summit	1/31	0	0.0	0.0 ---
Derr	1/25	24	6.2	1.1 7.0
Derr Pillow *	1/25	38	11.5	--- ---
Gold Center	2/2	38	9.4	2.1 9.3
Gold Center Pillow	2/2	34	8.3	--- ---
Indian Creek Butte***	1/24	69	18.6	--- 16.9
Izee Summit		e		1.2 5.6
Lucky Strike	2/2	27	8.4	2.3 10.9 ^b
Lucky Strike Pillow*	2/2	23	6.0	2.0 ---
Marks Creek	2/3	0	0.0	0.1 3.1
Ochoco Meadows	1/30	25	7.8	1.6 6.8
Ochoco Mdw. Pillow	1/30	32	9.5	--- ---
Olive Lake***	No Report			1.4 ---
Schoolmarm		e		1.0 3.5
Snow Mountain	1/31	33	10.4	1.8 ---
Snow Mt. Pillow	1/31	26	6.0	--- ---
Snow Mt. Pillow**	1/30	---	5.5	1.0 ---
Starr Ridge	1/31	15	4.1	0.9 4.4
Tipton	2/2	36	9.4	1.7 7.7
Tipton Snow Pillow*	2/2	---	11.3	1.6 ---
UPPER DESCHUTES, CROOKED WATERSHEDS				
Bald Peter	1/31	60	21.0	2.0 ---
Caldwell Ranch	1/27	14	4.4	1.0 8.0
Cascade Summit	1/30	36	12.0	4.2 19.2
Chemult Alternate	1/30	24	8.8	0.4 ---
Derr	1/25	24	6.2	1.1 7.0
Derr Pillow *	1/25	38	11.5	--- ---
Hogg Pass	1/30	43	14.4	3.3 27.5
Hogg Pass Pillow*	1/30	---	16.9	--- ---
Hungry Flat	1/30	8	3.0	0.0 4.9
Irish - Taylor	1/26	50	14.5	--- ---
Irish-Taylor Pillow*	1/26	---	11.4	--- ---
Irish-Taylor Pillow**	No Report		0.9	25.4
Lionshead***	No Report		0.0	---
Marks Creek	2/3	0	0.0	0.1 3.1
New Crescent Lake	1/25	18	6.0	0.9 10.2
New Dutchman Flat #2	1/30	68	23.6	3.0 32.9
Ochoco Meadows	1/30	25	7.8	1.6 6.8
Ochoco Meadows Pillow	1/30	32	9.5	--- ---
Racing Creek	1/31	28	8.2	0.0 ---
Snow Mountain	1/31	33	10.4	1.8 10.6
Snow Mt. Pillow	1/31	26	6.0	--- ---
Snow Mt. Pillow**	1/30	---	5.5	1.0 ---
Summit Lake Pillow*	1/25	---	15.6	--- ---
Summit Lake Pillow**	No Report		3.7	---
Tamarack	1/27	12	2.9	0.8 4.1
Tangent	1/30	37	12.8	1.0 16.0
Three Creek Butte	1/31	18	5.2	0.0 8.5
Three Creek Meadow	1/31	22	6.1	0.3 12.7
Three Creek Mdw. Pillow	1/31	30	8.6	0.6 ---
Waldo Lake	1/27	35	10.7	2.5 20.0
Whitewater Meadow	No Report		0.0	---

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR		PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)
	Last Yr.	Ave C		
HOOD, MILE CREEKS, LOWER DESCHUTES WATERSHEDS				
Brooks Meadows		e		---
Clear Lake	1/31	14	4.5	0.0 7.3
Clear Lake (Experimental)	1/31	27	8.4	1.2 10.9
Greenpoint	1/27	28	9.9	0.1 11.5
Greenpoint Pillow*	1/27	---	10.4	0.8 ---
Knebal Springs		e		---
Mt Hood Test Site**	1/31	---	29.2	8.0 41.3
Mud Ridge Pillow*	1/30	---	6.6	---
Red Hill	1/30	45	16.4	4.2 25.2
Red Hill Pillow*	1/30	---	16.9	4.0 ---
Still Creek	1/30	20	6.6	2.7 15.6
Switchback	1/30	24	7.7	0.7 10.1 ^b
Tilly Jane	1/29	64	23.5	1.8 25.7
Ulrich Ranch Junction		e		---
Umbrella Falls		104	41.1	7.4 ---
WILLAMETTE WATERSHEDS				
Cascade Summit	1/30	36	12.0	4.2 19.2
Champion	1/30	27	10.4	3.6 17.8 ^b
Clackamas Lake		e		---
Clear Lake	1/31	14	4.5	0.0 7.3
Clear Lake (Expt.)	1/31	27	8.4	1.2 10.9
Dead Horse Grade	1/29	3	1.2	2.0 11.2
Detroit (Town)	1/30	0	0.0	0.0 1.8 ^b
Detroit Dam	1/30	0	0.0	0.0 0.8
Golden Curry Creek	1/30	0	0.0	0.0 3.7
Hogg Pass	1/30	43	14.4	3.3 27.5
Hogg Pass Pillow*	1/30	---	16.9	--- ---
Lake Harriet	No Report			---
Laurel Mountain	1/31	T	0.1	0.0 ---
Laying Creek	1/30	0	0.0	0.0 0.2
Lookout Point Dam	1/30	0	0.0	0.0 0.3
Lost Creek Ranch	1/29	0	0.0	0.0 3.9
Lund Park	1/30	0	0.0	0.0 0.4
Marion Forks	1/30	T	0.1	0.1 9.1
Marion Forks Pillow*	1/30	---	0.5	---
Marys Peak	1/30	1	0.2	0.0 7.5
McCredie Springs	1/30	0	0.0	0.0 0.5
McKenzie	1/29	40	14.6	4.8 29.2
McKenzie Bridge	1/29	0	0.0	0.0 0.7
Mill City	1/30	0	0.0	0.0 0.5
Mt Hood Test Site**	1/31	---	29.2	8.0 41.3
Oakridge	1/30	0	0.0	0.0 0.2
Peavine Ridge Pillow**	1/31	---	2.8	0.2 12.3 ^b
Railroad Overpass	1/30	0	0.0	0.0 1.8 ^b
Saddle Mountain Pillow**	1/30	---	0.2	0.0 ---
Salt Creek Falls	1/30	2	0.8	2.2 10.6
Santiam Junction	1/30	18	6.0	0.1 16.7
Santiam Jct. Pillow*	1/30	---	7.8	--- ---
Seine Creek Pillow**	1/24	---	0.0	0.0 ---
Still Creek	1/30	20	6.6	2.7 15.6
Summit Lake Pillow*	1/25	---	15.6	--- 27.2 ^b
Summit Lake Pillow**	No Report		3.7	---
Timothy Lake	1/25	16	5.4	---
Valsetz Summit	1/31	0	0.0	0.0 ---
Vida	1/29	0	0.0	0.0 0.5
Waldo Lake	1/27	35	10.7	2.5 20.0
Weaver Creek	1/30	0	0.0	0.0 0.6
White Branch Slide	1/29	0	0.0	0.0 5.6
Whitewater Bridge	1/30	0	0.0	0.0 5.0

BASIC DATA SUPPLEMENT 1

FEBRUARY 1, 1978

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR		PAST REC.			SNOW		THIS YEAR		PAST REC.									
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)		Last Yr.	Ave c	DRAINAGE BASIN and/or SNOW COURSE	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)							
ROGUE, UMPQUA WATERSHEDS																			
Althouse	1/27	7	2.4	0.0	6.2			Annie Spring	2/5	94	33.0	3.1	28.7						
Annie Spring	2/5	94	33.0	3.1	28.7			Billie Creek Divide	1/26	34	11.6	3.4	14.7 b						
Beaver Dam Creek	1/31	16	6.2	1.9	9.6 b			Billie Creek Div. Pillow*	1/26	--	12.2	4.2	--						
Big Red Mountain	1/26	58	18.3	3.3	20.7			Chemult (Alternate)	1/30	24	8.8	0.4	--						
Billie Creek Divide	1/26	34	11.6	3.4	14.7			Chiloquin (PP&L)	No Report	--	1.8								
Billie Creek Div. Pillow*	1/26	--	12.2	4.2	--			Cold Springs Camp	2/1	64	21.1	--	--						
Calibar	1/27	77	25.2	3.3	24.7 b			Cold Springs Camp Pillow*	2/1	--	13.6	4.3	--						
Calibar (Alternate)	1/27	68	22.4	1.8	--			Crazyman Flat***	1/25	24	8.6	0.5	7.4						
Champion	1/30	27	10.4	3.6	17.8 b			Crowder Flat (Calif.)	1/25	6	1.6	0.5	3.2						
Cold Springs Camp	2/1	64	21.1	--	--			Crystal (PP&L)	2/3	e 4	1.5	--	6.8						
Cold Spgs. Camp Pillow*	2/1	--	13.6	4.3	--			Diamond-Crater Summit			3.0	19.5 b							
Deadwood Junction	1/31	3	1.0	2.3	6.5 b			Dog Hollow***	1/25	T	0.1	0.4	1.2						
Diamond-Crater Summit		e			3.0	19.5 b		Finley Corrals***	1/25	34	12.2	1.7	11.8						
Diamond Lake		e			2.4	13.7		Fort Klamath (PP&L)	2/3	7	2.8	--	3.6 b						
Fish Lake	1/27	16	5.1	3.1	9.4 b			Fourmile Lake	1/25	38	11.2	3.8	15.8 b						
Fourmile Lake	1/25	38	11.2	3.8	15.8 b			Fourmile Lake Pillow*	1/26	--	18.1	2.8	--						
Fourmile Lake Pillow*	1/26	--	18.1	2.8	--			Gerber	2/1	0	0.0	1.0	2.5						
Grayback Peak	1/25	43	12.7	4.0	19.2			Harriman (PP&L)	2/3	3	1.4	2.6	3.5						
Howard Prairie Reservoir	1/31	16	6.1	1.9	6.5 b			Howard Prairie	1/31	16	6.1	1.9	6.5 b						
Hyatt Prairie	1/31	7	2.6	0.9	6.0			Hyatt Prairie Reservoir	1/31	7	2.6	0.9	6.0						
King Mountain #1	1/26	10	3.7	1.5	--			Kirk (PP&L)	2/3	14	5.6	1.4	5.7						
King Mountain #2	1/26	3	1.2	1.8	--			Park Headquarters	2/5	123	41.4	3.8	38.8						
King Mountain #3	1/26	0	0.0	0.0	1.0			Quartz Mountain	1/27	13	4.7	1.0	5.4						
King Mountain #4	1/26	0	0.0	0.0	0.1			Seven Mile	1/31	60	19.9	3.7	--						
King Mountain #5	1/26	0	0.0	0.0	0.1			Seven Mile Pillow*	1/31	--	15.2	--	--						
King Mountain #6	1/26	0	0.0	0.0	0.0			State Line (Calif.)	1/25	9	2.4	1.4	6.9						
Little Red Mountain		e			3.3	18.1 b		Strawberry	1/21	18	4.9	0.7	6.0						
Mt. Ashland Switchback	1/27	76	24.7	2.2	24.4 b			Strawberry***	1/25	13	3.5	--	6.1 b						
Mule Creek	1/26	0	0.0	0.0	--			Summer Rim	e	--	--	--	--						
North Umpqua	1/30	9	3.8	1.7	10.3			Summer Rim***	1/25	36	13.0	1.4	10.3						
Page Mountain	1/27	0	0.0	0.0	4.0			Summer Rim Pillow*	e	--	--	--	--						
Park Headquarters	2/5	123	41.4	3.8	38.8			Sycan Flat***	1/25	9	3.2	0.4	6.3						
Red Butte #1	1/27	6	1.9	2.7	10.0			Taylor Butte	1/30	18	6.4	0.2	4.1						
Red Butte #2	1/27	1	0.4	1.9	6.7 b			Taylor Butte Pillow*	1/30	22	8.0	0.3	--						
Red Butte #3	1/27	0	0.0	0.0	4.1			LAKE COUNTY, GOOSE LAKE WATERSHEDS											
Red Butte #4	1/27	0	0.0	0.0	2.9 b			Adin Mountain (Calif.)	1/23	22	6.3	2.0	8.9						
Red Butte #5	1/27	0	0.0	0.0	0.6			Bald Mountain (Nev.)	1/25	15	4.5	0.8	--						
Red Butte #6	1/27	0	0.0	0.0	0.1			Bear Flat Meadow***	1/25	31	11.2	1.4	6.9						
Seven Mile	1/31	60	19.9	3.7	--			Camas Creek	1/27	23	6.8	1.7	7.6						
Seven Mile Pillow*	1/31	--	15.2	--	--			Cedar Pass (Calif.)	1/25	30	9.7	5.0	10.6						
Silver Burn	2/1	11	3.0	2.0	9.9			Colvin Creek***	1/25	12	4.3	0.4	4.2						
Siskiyou Summit	1/27	4	1.1	2.2	7.0			Cox Flat***	1/25	19	6.8	0.6	5.8						
Ski Bowl Road	1/27	65	20.8	2.1	20.5 b			Crowder Flat (Calif.)	1/25	6	1.6	0.5	3.2						
South Fork Canal	1/29	0	0.0	0.0	3.2			Dismal Swamp (Calif.)	1/25	58	17.4	2.6	10.1						
Trap Creek	1/30	3	1.5	1.8	8.8			Finley Corrals***	1/25	34	12.2	1.7	11.8						
								Hart Mountain***	1/25	10	3.0	0.4	1.0						
								Little Bally Mtn. (Nev.)	1/25	21	6.3	1.4	2.0						
								Mt. Bidwell (Calif.)	e	--	--	--	--						
								North Star (Calif.)	e	--	--	--	--						
								Patton Meadows***	1/25	45	16.2	1.7	12.5						
								Quartz Mountain	1/27	13	4.7	1.0	5.4						
								Roger Meadows***	1/25	34	10.2	0.3	--						
								Sherman Valley***	1/25	24	7.2	2.0	7.7						
								Silver Creek	1/28	6	2.0	0.3	2.7						
								State Line (Calif.)	1/25	9	2.4	1.4	6.9						
								Strawberry	1/21	18	4.9	0.7	6.0						
								Strawberry***	1/25	13	3.5	--	6.1						
								Summer Rim	e	--	--	--	--						
								Summer Rim***	1/25	36	13.0	1.4	10.3						
								Summer Rim Pillow*	e	--	--	--	--						
								Sycan Flat***	1/25	9	3.2	0.4	6.3						

BASIC DATA SUPPLEMENT 1

FEBRUARY 1, 1978

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR		PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)
			Last Yr.	Ave. ^c

HARNEY BASIN WATERSHEDS

Blue Mountain Springs	1/30	38	10.9	1.2	11.7
Blue Mtn. Springs Pillow*	1/30	--	14.0	1.4	--
Buck Pasture***	1/24	12	3.6	0.1	1.3
Buckskin Lake***	No Report		--	0.9	
Call Meadows***	1/24	33	8.9	0.4	2.9
Deinentment Lake	e		--		5.3
Denio Creek***	1/24	12	3.5	0.1	0.6
Disaster Peak (Nev.)	e		--		
Emigrant Butte	1/31	17	4.4	0.1	3.2 ^b
Fish Creek	e		--		--
Fish Creek***	1/24	60	18.0	--	--
Fish Creek Pillow*	e		--	14.6 ^b	
Hart Mountain***	1/25	10	3.0	0.4	1.0
Idewild Camp Alternate	2/1	14	3.8	0.1	--
Izee Summit	e		1.2		5.6
Lake Creek R.S.	1/31	31	8.5	1.0	7.2
Lake Creek R.S. Pillow*	e		--		--
Oregon Canyon	1/24	16	4.8	0.1	3.5
Rock Spring	e		1.0		4.0
Silvies	e		--		--
Silvies***	1/24	24	7.2	--	--
Silvies Pillow*	e		--		--
Snow Mountain	1/31	33	10.4	1.8	10.6
Snow Mountain Pillow	1/31	26	6.0	--	--
Snow Mountain Pillow**	1/30	--	5.5	1.0	--
Starr Ridge	1/31	15	4.1	0.9	4.4
Stinking Water	1/31	17	4.0	1.7	2.2
Trout Creek***	1/24	37	11.1	0.6	3.9
"V" Lake	1/24	24	7.2	1.6	3.4

LOWER COLUMBIA WATERSHEDS

Blazed Alder**	No Report		0.1	--
Mt. Hood Test Site**	1/31	--	29.2	8.0 41.3
Mud Ridge Pillow*	1/30	--	6.6	0.8 --
North Fork Reservoir**	1/31	--	6.5	3.5 --
Still Creek	1/30	20	6.6	2.7 15.6

SNOW

DRAINAGE BASIN and/or SNOW COURSE	THIS YEAR		PAST REC.	
	Date of Survey	Snow Depth (In.)	Water Cont. (In.)	Water Content (inches)
			Last Yr.	Ave. ^c

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

* Manometer reading.
** Telemetry reading.
*** Aerial reading.

T Trace

BASIC DATA SUPPLEMENT 2

FEBRUARY 1, 1978

SOIL MOISTURE

DRAINAGE BASIN and/or STATION		Profile (Inches)		Date of Survey	Soil Moisture (Inches)		
Name	Elevation	Depth	Capacity		This Year	Last Year	Average c
OWYHEE, MALHEUR WATERSHEDS							
Bear Creek (Nev.)	7800	72	16.8		e	---	---
Big Bend (Nev.)	6700	48	16.7		e	10.5	14.6
Blue Mountain Spring	5900	42	16.9	1/30	11.6	5.6	9.2
Mud Flat (Ida.)	5500	48	12.8		e	---	---
Rodeo Flat (Nev.)	6800	42	11.0		e	---	8.9
Taylor Canyon (Nev.)	6200	48	15.1		e	8.4	11.9
BURNT, POWDER, PINE, GRANDE RONDE, IMNAHA WATERSHEDS							
Blue Mountain Summit	5100	36	16.8	2/6	12.5	8.3	10.1
Dooley Mountain	5430	36	9.2	1/26	3.0	2.2	3.7
Emigrant Springs	3925	48	22.3	2/2	20.6	14.0	15.9
Ladd Summit	3730	48	18.9	1/25	10.6	9.0	10.4
Moss Springs	5850	36	25.8	1/28	14.3	13.0	14.9
Tollgate	5070	48	23.6	2/2	16.8	13.3	19.0
UMATILLA, WALLA WALLA, WILLOW, ROCK, LOWER JOHN DAY WATERSHEDS							
Battle Mountain Summit	4340	48	13.8	1/31	13.5	9.9	12.6
Emigrant Springs	3925	48	22.3	2/2	20.6	14.0	15.9
Tollgate	5070	48	23.6	2/2	16.8	13.3	19.0
UPPER JOHN DAY WATERSHEDS							
Battle Mountain Summit	4340	48	13.8	1/31	13.5	9.9	12.6
Blue Mountain Spring	5900	42	16.9	1/30	11.6	5.6	9.2
Blue Mountain Summit	5100	36	16.8	2/6	12.5	8.3	10.1
Derr	5670	24	9.0	1/25	8.9	4.3	8.1
Marks Creek	4540	36	14.1	2/3	11.3	9.4	11.0
Snow Mountain	6300	48	16.7	1/31	13.9	12.1	13.6
Starr Ridge	5150	36	10.6	1/31	10.6	8.0	9.3
UPPER DESCHUTES, CROOKED WATERSHEDS							
Derr	5670	24	9.0	1/25	8.9	4.3	8.1
Marks Creek	4540	36	14.1	2/3	11.3	9.4	11.0
Snow Mountain	6300	48	16.7	1/31	13.9	12.1	13.6
KLAMATH WATERSHEDS							
Quartz Mountain	5230	48	15.3	1/27	9.7	5.7	8.5
LAKE COUNTY, GOOSE LAKE WATERSHEDS							
Camas Creek	5720	42	14.5	1/27	13.1	7.6	12.1
Quartz Mountain	5230	48	15.3	1/27	9.7	5.7	8.5
HARNEY BASIN WATERSHEDS							
Blue Mountain Spring	5900	42	16.9	1/30	11.6	5.6	9.2
Silvies	6900	48	16.4		e	---	---
Snow Mountain	6300	48	16.7	1/31	13.9	12.1	13.6
Starr Ridge	5150	36	10.6	1/31	10.6	8.0	9.3
Willow-Bald	5000	24	6.6	2/1	6.6	4.1	5.7

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average. (d) Corrected to natural flow. (e) Not scheduled.

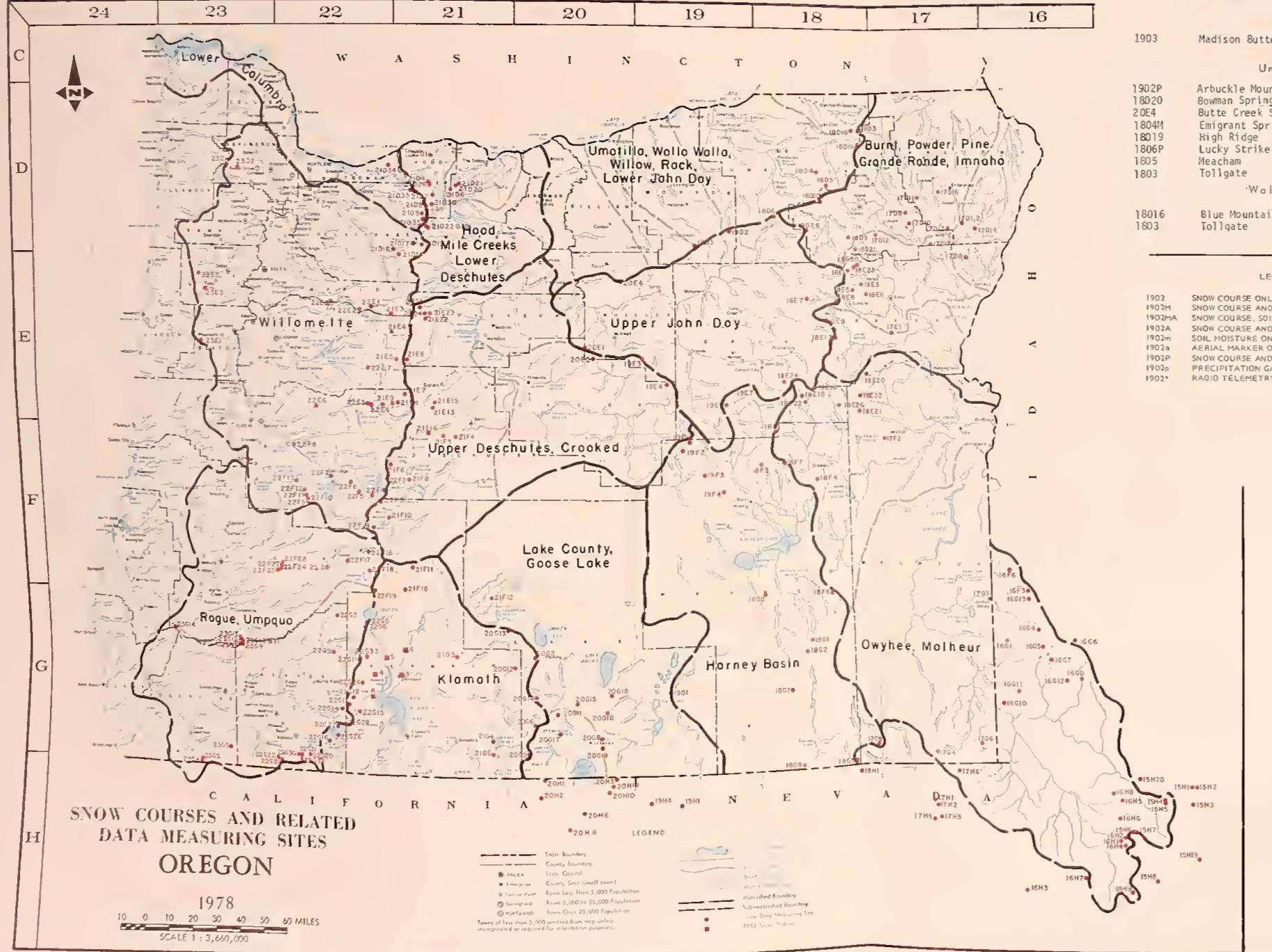
BASIC DATA SUPPLEMENT 3

FEBRUARY 1, 1978

PRECIPITATION (Inches)

DRAINAGE BASIN and PRECIPITATION GAGE LOCATION	ELEVATION	CURRENT INFORMATION		PAST RECORD	
		Date of Reading	Precipitation	Last Year	Average ^c
Arbuckle Mountain (Morrow County)	5400	From _____ To 1/26	31.00"	4.88	
Billie Creek Divide (Jackson County)	5310	From 12/28 To 1/26	6.12"	3.36	
Blue Mt. Springs (Grant County)	5900	From 12/28 To 1/30	4.81"	0.88	
Camas Creek (Lake County)	5825	From 12/30 To 1/27	4.00"	0.20	
County Line (Umatilla County--Starkey Hdqs.)	4800	From 12/29 To 1/27	1.44"	0.40	
Derr (Wheeler County)	5800	From 10/25 To 1/25	13.82"	----	
Eilertson Meadow (Baker County)	5400	From 1/6 To 2/3	4.44"	----	
Lucky Strike (Umatilla County)	5050	From 1/4 To 2/2	2.75"	6.69	
Mt. Hood Test Site (Clackamas County)	5555	From 12/21 To 1/31	13.92"	----	
Quartz Mt. Summit (Lake County)	6300	From 12/28 To 1/27	3.70"	1.25	
Schneider Meadows (Baker County)	5400	From 7/26 To 1/27	33.48"	----	
Taylor Butte (Klamath County)	5040	From 12/28 To 1/30	4.20"	0.12	
Tipton (Baker County)	5100	From 1/6 To 2/2	3.12"	11.16	

(a) Estimated. (b) 1958-72 adjusted average. (c) 1958-72, 15 year average (d) Corrected to natural flow. (e) Not scheduled.



Lake County, Goose Lake Watersheds III

ABCD 2000

Silver Lake

The map displays the Willamette River basin and the Upper John Day River basin. It includes contour lines, stream names like the Willamette, John Day, and Grande Ronde Rivers, and numerous red dots representing snow course locations. Elevation profiles are shown as black lines with vertical ticks indicating elevations at various points along the courses.

Location	Elevation (ft)
Headwaters (Willamette)	3600
John Day Confluence	1500
Lower John Day (Willamette)	1000

	Section	Township	Road	Elevation	
21021	Uffrich Ranch Junction	3	15	4E 5400	
21030	Umbrella Falls	3	3S	4E 5400	
2262	Silver Burn	30	30S	4E 3720	
22620	Siskiyou Summit	17	40S	2E 4630	
22632	Ski Bowl Road	22	40S	1E 6000	
2269	South Fork Canal	12	33S	3E 3500	
19F1	Bald Mountain	(Nev)	17	45N 21E 6720	
19G1a	Hart Mountain		1	36S 25E 6350	
19H4a	Little Bally Mt.	(Nev)	8	45N 19E 6600	
HARNEY BASIN WATERSHED [12]					
Silvies River - Silver Creek					
2106P	Brooks Meadows	2	25	10E 4300	
21020	Knebal Springs	31	1S	11E 3850	
21021	Ulrich Ranch Junction	28	1S	11E 3350	
22F9	Champion	12	23S	1E 4500	
22F18P	Diamond Lake	29	27S	6E 5315	
236B	King Mountain No. 1	5	33S	4W 4500	
18F7a	Call Meadows	29	20S	33E 5340	
19F2	Oelintmont Lake	28	19S	26E 5600	
19E3	Emigrant Butte	14	21S	27E 5000	

P Idlewild Camp 27 20S 31E 5

Site ID	Location	Lat	Long	Altitude
21022	Clear Lake Experimental	29° 45'	95° 55' E	3500
21E6	Hogg Pass	24° 13S	70° E	4755
21033*	Blazed Alder	5° 2S	88° 36' E	3650
21035	Mud Ridge	1° 45'	85° 38' E	3800

LOWER COLUMBIA WATERSHEDS (7)

a Hart Mountain 30° 29E
 PA Silvies 35 32° 33E

Ba Buckskin Lake 25 29S 30E

Map and Index to OREGON SNOW COURSES

Legend:

- Incorporated City
- County Seat (small town)
- Town Less than 3,000 Population
- Village
- Barreled 100
- Barreled 1000
- Towns of less than 3,000 omitted from map unless incorporated or required for orientation purposes.

Scale: SCALE 1 : 3,680,000

Index:

Town	Lat	Long
Detroit (City)	44° 10' S	123° 56' E
Detroit Dam	44° 10' S	123° 56' E

1610
1580 Map and Index to OREGON SNOW COURSES



The Following Organizations Cooperate in the Oregon Snow Survey Work

STATE

Idaho Cooperative Snow Surveys
Nevada Cooperative Snow Surveys
Oregon State University
Oregon Department Of Water Resources
Soil and Water Conservation Districts of Oregon

COUNTY

Douglas County Water Resources Survey

FEDERAL

Department of Agriculture
Cooperative Extension Service
Forest Service
Soil Conservation Service
Department of Commerce
NOAA, National Weather Service
Department of the Interior
Bonneville Power Administration
Bureau of Land Management
Bureau of Reclamation
Fish and Wildlife Service
Geological Survey
Department of National Defense
Corps of Army Engineers

PUBLIC UTILITIES

Pacific Power and Light Company
Portland General Electric Company
California-Pacific Utilities Company

MUNICIPALITIES

City of Baker
City of La Grande
City of The Dalles
City of Walla Walla

IRRIGATION DISTRICTS

Arnold Irrigation District
Associated Ditch Companies
Burnt River Irrigation District
Central Oregon Irrigation District
East Fork Irrigation District
Grants Pass Irrigation District
Hood River Irrigation District
Jordan Valley Irrigation District
Juniper Flat Irrigation District
Lakeview Water Users, Incorporated
Medford Irrigation District
Middle Fork Irrigation District
North Board of Control - Owyhee Project
North Unit Irrigation District
Ochoco Irrigation District
Rogue River Valley Irrigation District
South Board of Control - Owyhee Project
Squaw Creek Irrigation District
Talent Irrigation District
Tumalo Project
Vale - Oregon Irrigation District
Warmsprings Irrigation District

PRIVATE ORGANIZATIONS

The Crag Rats, Hood River, Oregon

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"The Conservation of Water begins
with the Snow Survey"

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